

Defending the Joint Force

Lessons Learned from Joint Base Balad

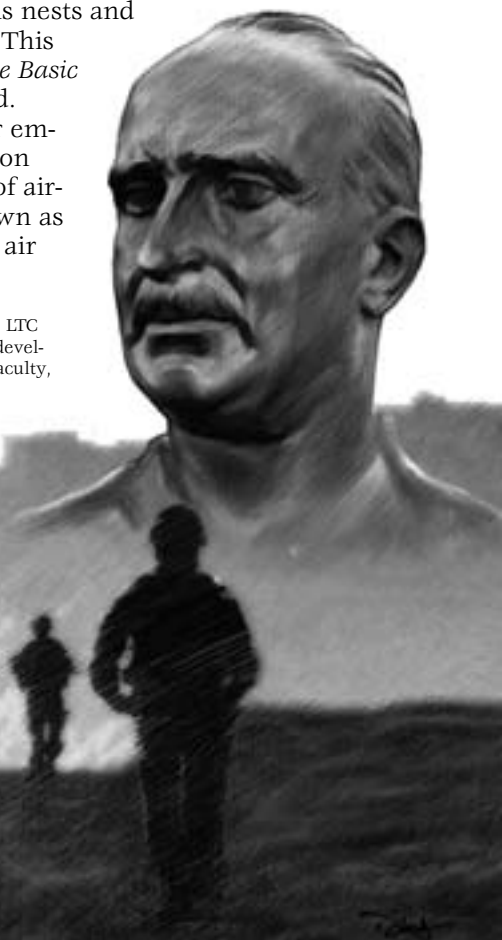
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Effective integration of joint forces exposes no weak points or seams to an adversary. They rapidly and efficiently find and exploit the adversary's critical vulnerabilities and other weak points as they contribute most to mission accomplishment.

—Joint Publication 1,
Doctrine for the Armed Forces of the United States

Italian general Giulio Douhet long ago noted that “it is easier and more effective to destroy the enemy’s aerial power by destroying his nests and eggs on the ground than to hunt his flying birds in the air.”¹ This concept is reflected in Air Force Doctrine Document 1, *Air Force Basic Doctrine*: “Air and space power is most vulnerable on the ground. Thus, force protection is an integral part of air and space power employment.”² However, base defense—defending one’s air assets on the ground—is one of the least understood operational aspects of airpower. Today’s Air Force strategy for defending air bases is known as integrated defense (ID) (formerly known as air base defense or air

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base ground defense). ID provides the requisite secure foundation from which the Air Force launches combat operations and protects its personnel and resources. Without strong ID, Air Force personnel and resources, as well as those of the joint force, are vulnerable to attacks that would decrease their combat effectiveness.

Prior to the wars in Iraq and Afghanistan, the Air Force considered threats outside the air base perimeter the responsibility of either the host nation or sister service forces.³ In 1985 the Air Force and Army signed Joint Security Agreement 8, which formally tasked the Army with the exterior defense of Air Force bases.⁴ By 2005 the Air Force had acknowledged that the Army would not have sufficient forces in some instances to perform exterior air base defense missions effectively. As a result, Air Force and Army leaders terminated the agreement, giving Air Force commanders more latitude in defending air bases with their own assets.⁵ In 2006 Brig Gen Robert Holmes, the Air Force's former director of security forces and force protection, wrote that "land-component maneuver forces will be stretched thin for the foreseeable future, so the Air Force must invest in its capabilities to securely project combat air and—now—ground power."⁶ In 2007 the Air Force announced a new strategy for defending air bases. This ID concept called for the "application of active and passive defense measures, employed across the legally-defined ground dimension of the operational environment, to mitigate potential risks and defeat adversary threats to Air Force operations."⁷ The ID operational approach called for new thinking that emphasizes ground intelligence-collection efforts in the operational environment and shifts security operations from a compliance-based model to a capabilities-based construct as a "fundamental battle competency for all Airmen, whether garrison or deployed."⁸ ID encouraged a truly collaborative base defense operation with joint and combined partners as well as a systems approach to defending air bases.

By 2008 the Air Force had accepted a new leadership role in Iraq when it became

the base operating support integrator (BOS-I) for Joint Base Balad (JBB) (formerly known as Logistics Support Area Anaconda and Balad Air Base). This role gave the Air Force responsibility for defending the base and its assigned joint forces, including the conduct of counterinsurgency (COIN) and counter-indirect-fire (IDF) operations outside the base perimeter.⁹ Personnel nicknamed JBB "mortaritaville" because it came under nearly daily attack by mortars and rockets, threatening both the combat mission and the joint force.¹⁰ Employing IDF, insurgents successfully interrupted and impeded operations. The base defense strategy prior to 2008 essentially chased the IDF shooters after attacks or employed counter battery fire against the incoming fire's point of origin. Before the Air Force became the BOS-I, one could describe the posture of exterior base defense as reactive:

In early 2004, Balad initiated a program to counter the insurgents [*sic*] stand-off attacks. The plan entailed the extensive use of UAV's [*sic*] [unmanned aerial vehicles], helicopters, counter-battery radar, and response forces to attack enemy forces *once they initiated stand-off attacks*. Quick reaction forces were positioned on-base (often helicopter transported) and off-base in vehicles. The results were more than disappointing—attacks against Balad increased dramatically.¹¹ (emphasis added)

It soon became clear that the service needed a new approach to base defense. As BOS-I the Air Force committed Airmen to an exterior base defense role in the largest combat deployment of security forces since the Vietnam War. Implementing an ID philosophy, that new role proved successful in defending JBB for several reasons: (1) the Air Force heeded lessons learned from defending air bases in Vietnam by committing intelligence analysts to ground defense intelligence; (2) Airmen took a proactive COIN approach designed to gain synergy with friendly and host-nation forces, best illustrated through the partnership with the Army ground force commander (known as the battlespace owner [BSO]), who controlled the terrain surrounding the installation; and (3) JBB organized a

unique ID method that featured tactics, techniques, and procedures designed to influence the battlespace as well as deter and disrupt attacks.¹² This success made JBB the model for implementing ID concepts in a combat environment. Reviewing the history of Air Force base defense—especially the important lessons from Vietnam—illustrates how Airmen applied historical lessons to JBB's operational environment, including innovative ways to counter IDF.

Learning from Vietnam

In both Vietnam and Iraq, IDF was the number-one threat to air bases because standoff weapons enable enemy forces to attack from a distance, thus giving them a better chance of survival. In Vietnam, Vietcong and North Vietnamese forces attacked American air bases 475 times between 1964 and 1973, primarily with IDF, destroying 99 US and South Vietnamese aircraft and damaging 1,170 aircraft.¹³ By contrast, insurgents have fired more than 340 mortars and

rockets against JBB since the Air Force took defense responsibility as BOS-I. These attacks resulted in no aircraft losses and only a few aircraft damaged; furthermore, just 50 percent of the rounds fired actually landed on the base.¹⁴ The adversary's IDF effectiveness against JBB, as measured by the latter criterion, was the lowest among the four most commonly attacked bases in Iraq. This fact indicates, among other things, that insurgents hurried their attacks, lacked the tactical loiter time needed for massing their fires, and feared the prospect of being either targeted by a ground patrol or videotaped by an air platform. (Videotape often serves as evidence in Iraqi courts.)¹⁵

Since US operations began at JBB, the base not only suffered more attacks than any other installation in Iraq but also came under IDF attack more frequently than all US air bases combined in Southeast Asia during a comparative range of years during the Vietnam War (see figure).¹⁶ As in Vietnam, JBB's IDF attacks profited from the terrain, which featured lush farmland, trees, vineyards, and the most complex ground in all of Iraq due to the

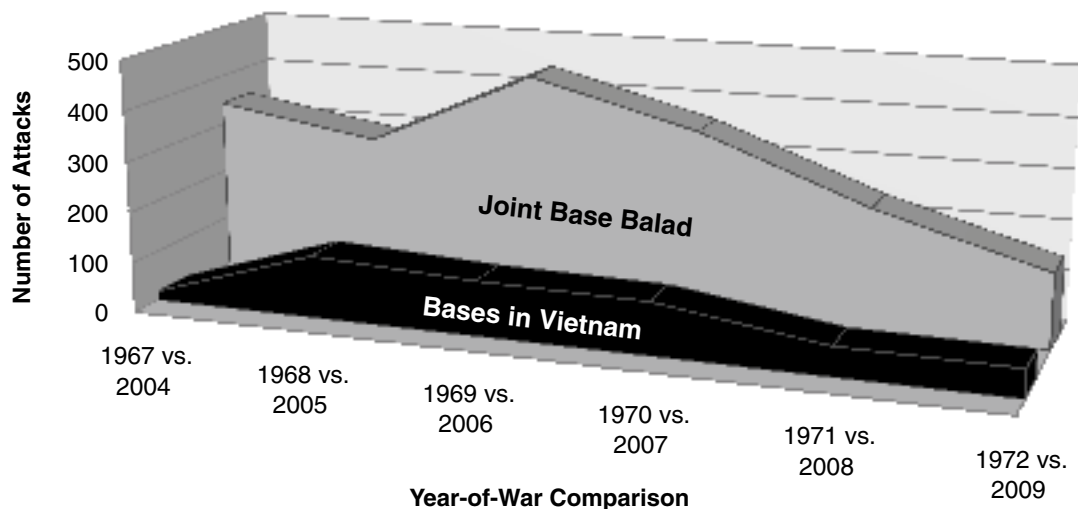


Figure. Comparison of attacks on Joint Base Balad to those on all US air bases in the Vietnam theater. (From Alan Vick, *Snakes in the Eagle's Nest: A History of Ground Attacks on Air Bases* [Santa Monica, CA: RAND, 1995], 69, http://www.rand.org/content/dam/rand/pubs/monograph_reports/2006/MR553.pdf. JBB data derived from Col Anthony Packard, 332d Expeditionary Security Forces Group, Joint Intelligence Support Element, 1 March 2010.)

concentration of irrigation systems and drainage canals that support the country's agricultural breadbasket. One hears echoes of Vietnam in the base defense challenges found in countering IDF in the terrain surrounding JBB. As a RAND report of 1995 observes, "The standoff threat, particularly from rockets, proved troublesome through the end of the [Vietnam] war. Given the nature of the conflict and the terrain, there was no foolproof countermeasure to this threat."¹⁷

In Iraq the security at JBB's entry control points and perimeter drove the enemy to IDF attacks as the course of least resistance, giving him the best chance for disrupting US operations. Each attack required personnel at the installation to take cover and clear the terrain of unexploded ordnance prior to returning to normal operations. The patterns of attack in Iraq have shown a lack of specificity in targeting, but their basic objectives sought to disrupt coalition military operations and inflict casualties in order to undercut the American public's resolve. Iraqi insurgent forces ranged from well-trained former Baathists to disenfranchised tribes with militia-like capabilities and unskilled attackers motivated solely by monetary reward earned from performing IDF attacks against JBB. Consequently, many IDF attacks were perpetrated by novices who undertook subcontract work for insurgent groups. JBB's counter-IDF strategy focused on deterring and disrupting attacks to prevent the enemy from massing fires for maximum effect. As a result, enemy IDF attacks were typically short in duration and performed hurriedly from unprepared firing positions.

Vietnam-era base defense and that at JBB also differed significantly in terms of the complexity of attacks. Those in Vietnam proved more effective because enemy forces had more freedom of movement, enabling them to mass fires and ground attacks due to the inability of air base defenders to effectively patrol the IDF threat ring around their installations. Vietnam theater air bases endured not only IDF attacks but also 29 sapper attacks, during which forces attempted

to penetrate bases to destroy aircraft and key defenses.¹⁸ Eight of those attacks utilized IDF as a diversion for base defense forces, thereby screening attackers during ground assaults.¹⁹ Unlike Vietnam, sapper attacks have not materialized in Iraq because they are highly complex, synchronized operations requiring a disciplined, trained military force lacking in the Iraqi insurgency.

Moreover, unlike Vietnam, the 2008 US-Iraq security agreement substantially altered the rules of engagement by making the war a "law enforcement fight" that obligated US forces to build criminal cases with supporting evidence against their attackers.²⁰ The agreement presented multiple limiting factors for defending the air base; nevertheless, it bolstered the larger strategic effort to support Iraqi rule-of-law programs and had the added benefit of making Iraqi police and courts the centerpiece of long-term Iraqi success. Furthermore, by requiring that the Iraqi police handle all cases against alleged insurgents and process them through the court system, the new policy promoted a more favorable image of US Airmen, casting them as partners in upholding the Iraqi rule of law rather than as an occupying force disrespectful of local authority. As such, Soldiers, Air Force security forces, Airmen with the Air Force Office of Special Investigations, and pilots from both services testified in Iraqi courts, resulting in successful criminal prosecutions under Iraqi law.²¹

Commenting on the US-Iraq security agreement of 2008, Maj Gen Mike Milano, USA, points out that "what we and the Iraqis are striving for is a condition known as police primacy. . . . Under police primacy, the Iraqi police forces have primary responsibility for internal security, under civilian control, in accordance with the Iraqi constitution and consistent with the rule of law."²² JBB, therefore, initiated further partnering with the Iraqi police and built a local police substation to provide a law enforcement partnership for the base. US Soldiers and Airmen worked alongside Iraqi police, often conducting joint and combined patrols and operations.

Knowledge of the Enemy: Committing Air Force Intelligence Analysts to Base Defense

In contrast to bases in Vietnam, JBB enjoyed a true commitment of intelligence assets for base defense. In Vietnam, Air Force intelligence assets emphasized air operations to the detriment of intelligence about *ground* base defense threats—a situation that proved highly problematic. As the Office of Air Force History notes, “Hobbling external security [in Vietnam] was the lack of reliable intelligence on enemy activities within striking distance of bases. This rose chiefly from the Air Force’s failure to generate tactical ground intelligence.”²³

To remedy this historical shortfall, the wing at JBB, as part of its BOS-I base-defense responsibilities, stood up a dedicated, ground-focused force-protection intelligence organization in November 2008. Led and manned by Air Force intelligence, surveillance, and reconnaissance (ISR) professionals, this joint intelligence support element (JISE) received assistance from contracted intelligence analysts. Robust ground intelligence operations fully enabled Army and Air Force ground forces to defend JBB through proactive deterrent patrols in areas where IDF tended to originate.

The BSO fully leveraged Air Force intelligence analysis and capacity to create a synergy with his own intelligence staff, thereby optimizing the JISE’s capabilities. This completely synchronized effort supported intelligence fusion designed to drive defense operations in the base security zone. The JISE’s goal of attaining predictive battlespace awareness called for foreknowledge and the ability to shape operations based not only on reviewing the enemy’s past actions but also on predicting actions he would likely take in the future. Classic approaches to intelligence based on analyses of historical trends tend to drive a defense posture that responds after attacks occur. In those paradigms, ground forces are no more than “shot responders” in a counter-IDF

fight, essentially sweeping for the enemy in the location from which the IDF round came, as indicated by radar and spotter reports. This reactive approach becomes a frustrating exercise comparable to a game of “whack-a-mole”: chasing the enemy around the battlespace without generating any lasting effects. Though only temporary, these results nevertheless require a tremendous expenditure of energy and resources.

The JISE’s analysis led to an intelligence-driven targeting process that enabled Air Force security forces to move from a mostly reactive defensive posture to a proactive scheme of maneuver. Lasting effects of this strategy require dominance of the human terrain within and outside an installation as well as understanding the relationships among key groups, tribes, and individuals. This reality drove Airmen to study and gain insights into the violent extremist networks operating in the area and to participate actively in mapping and pressuring these networks through a constant presence. Airmen fed the intelligence cycle by gathering information from relationships they had established in the battlespace, thereby closing the intelligence gap between themselves and the enemy network.

Joint ID operations adopted an intelligence-driven model that followed four lines of operation based on JISE analysis: (1) deny the enemy unobserved freedom of movement, particularly in traditional attack locations; (2) map out insurgent networks and identify key leaders, weapons facilitators, and support nodes; (3) establish patterns of life (i.e., determine who met with whom, when and where they met, and how they moved, shot, and communicated); and (4) map out the human terrain to discover fault lines among locals who hate the coalition, those who grudgingly tolerate but do little to help coalition forces, and, finally, the ones whom those forces might convince to support efforts to secure the installation and the area surrounding it.

This effort prompted the development of an intelligence-collection plan and opera-

tional framework that cycled over a two- to three-week period, maximizing the existing ground combat power. For example, denying unobserved freedom of movement everywhere at all times proved impossible with the resources at hand. However, intelligence analysis of historical data produced a strategy that denied the enemy access to his favored locations for launching attacks during the most likely times for hostile activities. Each intelligence objective had a list of sub-objectives for signals intelligence resources, a similar list for airborne ISR resources, and so forth, including one for security forces Airmen during their combat patrols.

Leveraging air assets directly enabled base defense. JISE strategy fostered a collaborative atmosphere among many joint players. Through the standard air tasking order and collection-management processes, the JISE obtained regular Global Hawk and Joint Surveillance Target Attack Radar System geospatial products as well as nationally derived intelligence products delivered through the combined air operations center's forward-deployed Air Force National Tactical Integration Cell. (It is more accurate to say "nationally derived intelligence products" since they were often of a multi-intelligence nature.) Despite the usefulness of these planned ISR assets, they were dwarfed by contributions of the expeditionary operations group and Army aviation units, both fixed and rotary wing, which delivered countless hours of "residual" ISR. To realize the most value from planned and residual airborne assets, the JISE had to produce, execute, and assess a comprehensive collection plan.

The JISE was effective at pulling together disparate units to reach a commonly desired end state: protecting its own people from IDF attacks. Because of the absence of an insurgent air threat and a paucity of opportunities to strike targets kinetically, pilots and air planners welcomed the opportunity to fly residual ISR to protect the base, utilizing their remaining fuel and loiter time after completing their primary mission. Members of the operations group col-

lected intelligence, logging hundreds of hours as they followed insurgent leaders to meetings at all times of the day and night, and Army aviation units loitered at a distance, capturing imagery of insurgents' patterns of life. The JISE orchestrated a collection plan adaptable to residual flight schedules to piece together persistent ISR 15 to 60 minutes at a time—the length of time that a residual asset would make itself available for the local ISR effort. The JISE collection coordinator produced a daily collection plan known as the "residual deck." For each collection target, the plan included specific elements of information meant to enable JISE analysts to fill gaps in their knowledge of the target, his activities, and insurgent networks associated with him. JISE partner analysts supplied crucial information about the activity patterns of each target by maintaining this information on a simple spreadsheet compiled each week. Given the nature of the Iraqi insurgency, successful ISR operations had to include ground-based collection by patrols in close contact with high-value individuals and the populace surrounding them.

Like the airborne collection plan, the ground-based plan began by examining the overall ISR strategy to determine tasks suited to the patrols. Security forces Airmen proved critical to successful implementation of the JISE's intelligence-collection strategy. Each day, patrols operated in the battlespace, conducting terrain-denial operations and interacting regularly with some portion of the roughly 120,000 Iraqi citizens who lived within 10 kilometers of the base perimeter. These patrols presented an enormous intelligence opportunity, especially in mapping the human terrain and relationships among key individuals and groups in the battlespace. According to Gen David H. Petraeus, "the human terrain is the decisive terrain."²⁴ This statement translates to battling insurgents for influence and support from the contested population, whose cooperation, trust, and support we must secure in order for security and stability to take root.

The BSO's campaign plan and JBB's ID operations emphasized attempts to influence the human terrain. In each neighborhood, Army and Air Force patrols struck up conversations with locals to determine the identities of individuals with whom they were speaking, their occupations, and how they felt about topics such as their security situation, government services, and so forth. By identifying occupants of the various houses and obtaining grid coordinates for each dwelling, the patrols literally mapped the human terrain surrounding JBB. JISE analysts dutifully recorded each individual, using the data to build a complete picture of the human terrain. While traditional intelligence sources enabled security forces to narrow down the location of a high-value individual within a block of five to 10 houses, Airmen and Soldiers on the ground easily pinpointed the exact residence and its occupants simply by asking locals to provide information about the individual of interest. This practice proved so effective that it sometimes startled the individual himself when he answered a knock on the door to find a squad of Airmen or a platoon of Soldiers in his front yard.

Counterinsurgency Synchronization: Developing Joint and Combined Partnerships

At JBB, Airmen learned to leverage non-kinetic assets and operations to achieve lasting effects in support of the BSO's COIN and stability campaign plans. The wing hosted biweekly COIN and civil-engagement synchronization meetings to ensure full support to the BSO from the Army, Air Force, and Department of State partners at JBB. Conversely, the BSO embraced Air Force and other partner units as a means of realizing his overall campaign objectives along three decisive lines of operations: security, economic development, and governance. No fewer than five times per week, wing representatives and JISE analysts met

with the BSO and partner units to improve coordination and information sharing. Those meetings included a review of intelligence operations, operations synchronization, targeting, the BSO's weekly effects summary, and numerous synchronization meetings at the field-grade- and company-grade-officer levels. For operators this meant providing support such as ISR data on the locations of high-value individuals, sweeps over IDF hot spots, aerial monitoring of security for Iraqi election polls, and aerial shows of force with F-16s over terrain from which IDF attacks frequently originated.

The BSO was responsible for synchronizing all friendly forces in his area of operations, which included conducting kinetic and nonkinetic actions, maintaining situational awareness of all forces, and controlling fire-support coordination measures. The BSO leveraged the capabilities of all coalition, host-nation, and other partner units, including nonmilitary entities such as the Department of State's provincial reconstruction teams and nongovernmental organizations. Their accomplishments proved that, if properly synchronized, such mutually supporting operations create a symbiotic relationship and unity of effort, ultimately yielding a more efficient use of resources. US Joint Forces Command noted that the BSOs are learning to take advantage of all available operational enablers: "Many joint players . . . operate in the battlespace owners' areas of operation. . . . Battlespace owners are becoming increasingly more comfortable with these 'non-assigned' players in their battlespace."²⁵

It was important to recognize that all operating bases in the BSO's area of operations can have profound positive or negative second- and third-order effects across the operational environment. These include decisions that may appear confined to the base itself, whether they are air provost services (law and order operations), contracting, construction, or something as simple as hosting a local children's event. If such operations and activities are poorly coordinated and if local national ties are not

clearly understood, they can undermine the BSO's relationship with key local Iraqi officials and adversely affect efforts along multiple lines of operation. JBB operated with diverse host-nation forces, including local and federal Iraqi police, paramilitary groups like the Sons of Iraq, locally contracted Iraqi entry-control screeners, and Iraqi Army and Air Force elements. US Air Force security forces conducted combined patrols with Iraqi Army units to build this relationship, which, paired with many US Army and Air Force key-leader engagements with the Iraqi Army, ultimately led to the Iraqi Army's moving forces onto JBB in August 2010.²⁶

Combat operations, both kinetic and non-kinetic, demand coordination across the spectrum of COIN operations. The BSO's campaign plan required Airmen to understand operational COIN doctrine and philosophy as well as how their daily operations and public interactions affected the battlespace. Importantly, leaders of the 332d Air Expeditionary Wing saw partnering with the BSO as an operational imperative, tasking one staff officer to focus exclusively on synchronizing wing operations and host-nation outreach with the BSO. This effort reduced friction, eliminated seams between policies, and fully synchronized JBB with the BSO's information operations and public relations messaging. Some examples of nonkinetic COIN efforts at JBB included special events for local children and businessmen, Airmen on combat patrol conducting key-leader engagements with Iraqi forces or local tribal leaders, Air Force firemen training local volunteer fire departments in American fire department techniques, and security forces and medical personnel providing emergency treatment at base-entry control points. They also included complying with local or host-nation statutes such as water rights and employment opportunities used to reward tribes for cooperating with the coalition, conducting frequent walking patrols to build relationships with local tribes and farmers, rendering emergency medical aid in local villages, delivering school and medical supplies, pro-

viding wheelchairs for the disabled, and conducting a multitude of small but important community-outreach activities to emphasize JBB's "good neighbor" philosophy.

To counter the disadvantages that combat forces faced in terms of limited coverage and loiter time, JBB realized that a comprehensive and continuous synchronization process was essential. This effort produced the air portion of the task force's combined patrol and the ISR synchronization matrix—a snapshot of ground patrols and projected air coverage for every 24-hour period during the weekly BSO effects cycle. The synchronization matrix specifically addressed JBB's IDF threat rings and supplied visibility on both BSO and Air Force ground and air assets. This synchronized effort ensured that ground and air patrols covered the predicted IDF threat windows generated by the JISE.

Organizing for an Integrated Defense

In order to achieve the desired ID effects, the 332d Air Expeditionary Wing organized its base defense assets under the JBB defense force commander, an Air Force security forces colonel responsible for ensuring ID of the base by executing force protection and defensive operations.²⁷ This individual worked to leverage the joint assets operating in the vicinity of JBB to guarantee a collaborative approach with partner joint units and host-nation forces that would produce operational gains and "mitigate potential risks and defeat adversary threats to Air Force operations."²⁸ Furthermore, the defense force commander synchronized his ID operations through the joint defense operations center, collocated with a BSO tactical operations center. The joint defense operations center directed and integrated all subordinate security system and communications elements, serving as a tactical integrator of both intelligence and guidance for BSO effects that drive the base defense effort.

A truly joint team, JBB's joint defense structure included tactical control of the

counter-rocket artillery mortar (C-RAM) joint intercept battery. C-RAM Soldiers and Sailors were responsible for employing the system's intercept, sense, respond, and warn capabilities, together with combat power, as a unique defense against enemy IDF attacks and as a localized warning to populated areas of the base. Placing C-RAM under tactical command of the Air Force defense force commander has ensured the best possible integration of C-RAM capabilities into the overall physical security and force-protection architecture of JBB and the counter-IDF plan.

In order to produce effects in the battlespace, the defense force commander and his Airmen partnered with a ground BSO who had operational responsibility for the terrain surrounding JBB and responsibility for developing and executing a campaign plan supporting national objectives within a specific geographic area. As part of the BSO construct, all personnel transiting through the BSO's domain must comply with his commander's intent for the battlespace, Army tactical command and control protocols, mission-planning requirements, and the scheme of maneuver supporting the BSO's campaign plan. Compliance with all of the guidance and generation of the desired effects demanded a fully synchronized and coordinated effort between the Air Force and Army ground forces that defended the air base.

Significantly, the BSO viewed JBB's base defense as a subset of an extensive list of operational mission tasks within the operational environment. To put the BSO's operational challenges in perspective, he had responsibility for a large geographic area far beyond the IDF threat ring affecting the air base—specifically, more than 3,000 square kilometers rather than only the 243 square kilometers encompassing the JBB standoff-attack threat area. Analysis of the JBB operational environment easily indicates how a BSO can be stretched beyond capacity and how external force protection of an air base could be relegated to a low priority.

Conclusion

The Air Force's official history of air base defense in Vietnam illustrates how the competing priorities of ground commanders made the commitment of Air Force ground combat power to protecting air bases an operational imperative: "Reliance on other services for the defense of air bases was a problem for the [Royal Air Force] on Crete, the *Luftwaffe* in North Africa, and the [United States Air Force] in Vietnam. In each case, air base defense had to compete with other missions on which ground commanders placed higher priority."²⁹

To remedy these historic shortfalls, the joint partners at JBB fully integrated their limited base defense assets to present a unified front to the adversary and limit defensive seams that he might exploit. They did so through multiple levels of information sharing that gave base defenders a common operating picture through shared intelligence. Integrated ground and air operations forces interdicted and captured 22 IDF shooters and triggermen for improvised explosive devices over a five-month period, validating the joint approach to base defense. These operations eliminated more than half of the enemy's upper-tier high-value individuals and more than a dozen of the JBB security belt's "most wanted" enemy personnel.

Air Force leaders should learn many important lessons from the JBB defense model since asymmetric threats to air operations likely will increase in the future. As predicted by a RAND study on air base defense, "We expect that [air base] opponents might pursue three different objectives with these [future] attacks: (1) destroy high-value assets critical to USAF operations, (2) temporarily suppress sortie generation at a critical moment in a crisis or conflict, or (3) create a 'strategic event'—an incident as decisive politically as loss of a major battle is military or operationally—that could reduce U.S. public and/or leadership support for the ongoing military operation."³⁰

The lessons learned in defending JBB have highlighted capabilities and ID

strengths that the US Air Force can contribute to the joint fight to defend against asymmetric threats. The Air Force must continue to refine its ID approach, train leaders who understand and embrace the ground BSO concept, and develop leaders who can readily plug into joint operations in COIN and stability-operation environments. For example, as recently as 2010, the Integrated Defense Command Course, the Air Force's premier base defense leadership course, still does not require coordination with a ground BSO or host-nation partner for its exercise scenarios and remains devoid of any of the technology and synchronization methodologies so essential to the synergy of joint base defense. The Air Force must codify the operational lessons of JBB's ID into organizational and operational constructs that it can apply to current and future base defense operations.

The JBB defense model has proven that Airmen can ensure their place on the battlefield as true joint and combined partners by defending not only their own air assets and war fighters but also those of the joint team. The commitment of Airmen to the joint force protection of JBB has proven critical to keeping IDF at a manageable level and diminishing its effects on air operations. The results were impressive: between November 2008 and March 2010, IDF attacks decreased by 52 percent, and surface-to-air fire decreased by 40 percent.³¹ This success allowed the BSO to concentrate limited combat assets on core tasks that supported activities such as key-leader

engagements, increases in the capacity of Iraqi security forces, economic development, and construction projects. At JBB the BSO stated that Air Force security forces provided the equivalent of more than one infantry company's worth of combat power that he could use to attain specific desired effects outside the wire.³² By sending Airmen out to meet the enemy on the ground and in the air, the Air Force has enjoyed greater security and freedom of movement to support its own air operations and BOS-I base defense responsibilities.

True joint warfare involves caring less about getting credit and more about producing effects. At JBB, Air Force leaders at all levels embraced the ID concept and searched for ways to support the BSO's COIN campaign plan because it paid dividends to the installation's defense, ensuring the conduct of air operations in a more secure and stable environment. As the BSO noted, "Dealing with challenges presented by this complex environment required multiple agile thinkers and holistic problem solvers capable of identifying and implementing operational-environment-specific full-spectrum- or stability-operations-based effects."³³ These battlefield effects speak volumes about what Airmen can achieve with their joint and combined partners when they are effectively integrated and positioned to bring their ID capabilities to bear in support of the joint fight. Base defense experiences in Iraq demand a fresh look at the role the Air Force plays in defending its own assets and those of the joint force. ✪

Notes

1. Giulio Douhet, *The Command of the Air*, trans. Dino Ferrari (1942; new imprint, Washington, DC: Office of Air Force History, 1983), 53–54.

2. Air Force Doctrine Document 1, *Air Force Basic Doctrine*, 17 November 2003, 25, http://www.dtic.mil/doctrine/jel/service_pubs/afdd1.pdf.

3. Maj David P. Briar, "Sharpening the Eagle's Talons: Assessing Air Base Defense," *Air and Space Power Journal* 18, no. 3 (Fall 2004): 65–74, <http://www.airpower.au.af.mil/airchronicles/apj/apj04/fal04/Fal04.pdf>.

4. Richard G. Davis, *The 31 Initiatives: A Study in Air Force–Army Cooperation* (Washington, DC: Office of Air Force History, 1987), 125.

5. "Validating the Abrogation of Joint Service Agreement 8," AF/XOS-F staff package, 18 November 2004.

6. Brig Gen Robert H. "Bob" Holmes et al., "The Air Force's New Ground War: Ensuring Projection of Air and Space Power through Expeditionary Security Operations," *Air and Space Power Journal* 20, no.

3 (Fall 2006): 51, <http://www.airpower.au.af.mil/airchronicles/apj/apj06/fal06/Fal06.pdf>.

7. Air Force Policy Directive (AFPD) 31-1, *Integrated Defense*, 7 July 2007 (incorporating change 1, 22 April 2009), 2, <http://www.af.mil/shared/media/epubs/AFPD31-1.pdf>.

8. Ibid.

9. SSgt Don Branum, 332d Air Expeditionary Wing Public Affairs, "Balad Airmen Look Back: 2008 in Review," 1 January 2009, Joint Base Balad, Iraq, <http://www.balad.afcent.af.mil/news/story.asp?id=123129950>.

10. "Warrant Officer: 'It's Just a No-Win Situation,'" National Public Radio, 13 July 2007, <http://www.npr.org/templates/story/story.php?storyId=11952622>.

11. David T. Young, "Applying Counterinsurgency Theory to Air Base Defense: A New Doctrinal Framework" (thesis, Naval Postgraduate School, September 2005), 29, <http://www.dtic.mil/cgi-bin/GetTRDoc?Location=U2&doc=GetTRDoc.pdf&AD=ADA439510>.

12. *Battlespace owner* is not an approved joint or service term, but JBB's joint forces and ground force commander uses it to describe his authority over the geographic area surrounding the base. The term is used by the Joint Warfighting Center, United States Joint Forces Command, and has been utilized in numerous publications, including the following: Gen Gary Luck, Col Mike Findlay, and the Joint Warfighting Center Joint Training Group, "Insights and Best Practices: JTF Level Command Relationships and Joint Force Organization," Focus Paper no. 4 ([Norfolk, VA:] United States Joint Forces Command, Joint Warfighting Center, November 2007), 5, <https://jko.harmonieweb.org/lists/Sitelinks/attachments/63/JTF%20level%20Command%20Relationships%20and%20Joint%20Force%20Organization%20-%20Focus%20Paper%204%20-%20Nov%202007.pdf>; and Gen Gary Luck, Col Mike Findlay, and the Joint Warfighting Center Joint Training Division, "Joint Operations: Insights and Best Practices," 2d ed. ([Norfolk, VA:] United States Joint Forces Command, Joint Warfighting Center, July 2008), <http://www.ndu.edu/pinnacle/docUploaded/Insights%20on%20Joint%20Operations.pdf>. See also AFPD 31-1, *Integrated Defense*.

13. Alan Vick, *Snakes in the Eagle's Nest: A History of Ground Attacks on Air Bases* (Santa Monica, CA: RAND, 1995), 68, http://www.rand.org/content/dam/rand/pubs/monograph_reports/2006/MR553.pdf.

14. Col Anthony Packard, 332d Expeditionary Security Forces Group, Joint Intelligence Support Element, 1 March 2010.

15. Ibid.

16. Data derived from Vick, *Snakes in the Eagle's Nest*, 69; and Col Anthony Packard.

17. Vick, *Snakes in the Eagle's Nest*, 102.

18. Ibid., 90.

19. Ibid.

20. "Agreement between the United States of America and the Republic of Iraq on the Withdrawal of United States Forces from Iraq and the Organization of Their Activities during Their Temporary Presence in Iraq," 17 November 2008 (made official on 14 December 2008), http://iraq.usembassy.gov/media/2010-irc-pdfs/us-iraq_security_agreement_ena.pdf.

21. Armand Cucciniello, "Iraq Proves Fertile Ground for Rule of Law Programs," 18 March 2008, Embassy of the United States, Baghdad, Iraq, http://iraq.usembassy.gov/prt_news_03182008.html.

22. "Police Primacy and Rule of Law in Iraq Dominate Press Conference," Press Release no. 090619-01, **Multi-National Security Transition Command-Iraq**, Public Affairs Office, Phoenix Base, 19 June 2009, *Operation New Dawn: Official Website of United States Forces-Iraq*, http://www.usf-iraq.com/?option=com_content&task=view&id=26970&Itemid=128.

23. Roger P. Fox, *Air Base Defense in the Republic of Vietnam, 1961-1973* (Washington, DC: Office of Air Force History, 1979), 171.

24. "Opening Statement, General David H. Petraeus, Confirmation Hearing: Commander, ISAF/US Forces-Afghanistan, 29 June 2010," United States Central Command, <http://www.centcom.mil/en/from-the-commander/gen-petraeus-isaf-confirmation-hearing>.

25. Luck, Findlay, and the Joint Warfighting Center Joint Training Group, "Insights and Best Practices," 5.

26. SSgt Phillip Butterfield, 332d Air Expeditionary Wing Public Affairs, "Iraqi Army Returns to Joint Base Balad," Air Force News Service, 18 August 2010, <http://www.af.mil/news/story.asp?id=123218187>.

27. AFPD 31-1, *Integrated Defense*, 8.

28. Ibid., 2.

29. Vick, *Snakes in the Eagle's Nest*, 108.

30. David A. Shlapak and Alan Vick, *Check Six Begins on the Ground: Responding to the Evolving Ground Threat to U.S. Air Force Bases* (Santa Monica, CA: RAND Corporation, 1995), 15-16.

31. Col Anthony Packard.

32. Lt Col Eric R. Timmerman, commander, 1st Battalion, 28th Infantry Regiment "Black Lions," 4th Infantry Brigade Combat Team, the battlespace owner, interview by Lt Col Shannon W. Caudill, 17 July 2010.

33. Ibid.



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